

Febeliec answer to the Elia consultation on the methodology, hypotheses and data sources for the dimensioning of the volumes of strategic reserve for winter 2021-2022

Febeliec would like to thank Elia for this consultation on the methodology, hypotheses and data sources for the dimensioning of the volumes of strategic reserve for winter 2021-2022. Febeliec has been involved in similar and other consultations involving adequacy assessments in previous years as well as in workshops and studies on certain aspects related to this consultation and also wants to refer to its answers in those consultations and discussions and regrets that several topics still have not been addressed by Elia as improvements to the methodology. Febeliec also strongly wants to stress that the methodology applied by Elia has never been the subject of a public consultation, and has never been fully accepted by Febeliec because of the many unsolved issues and flaws it still finds in the methodology.

On the “improvements” described by Elia, Febeliec has following comments:

- On flow-based modelling, Febeliec continues to wonder, despite already having formulated this exact same comment in the framework on the consultation for winter 2020-2021, what will be the (quantitative) impact of the incorporation of ALEGRO into the flow-based domain, a question Febeliec also already voiced in 2019-2020, yet this aspect remains unclear, despite ALGERO entering into service presumable in Q4 2020. The same applies to the HTLS upgrades on certain parts of the 380kV grid.
- On the total demand growth, Febeliec appreciates that Elia has tried to address the concerns related to the HIS Markit data and has proposed a new methodology. However, Febeliec has not yet seen, despite some workshops and discussions, whether the proposed approach will lead to a better outcome; with the side comment that for the analysis in the framework of a strategic reserve, only looking forward one year to three maximum, the model could potentially provide some useful primary insights as presumably most fundamentals wouldn't change over a short time period. However and exactly in 2020, the world and Belgium have been undergoing (and still are) the worst economic crisis of recent history (Covid-19) and as such even the very recent past will presumably not be the best precursor for the (near) future as both the starting point and the growth path will have been substantially modified. Febeliec will come back to this in more detail below. Nevertheless, the impact of Covid-19 is completely absent in the proposal of Elia and it is also unclear how and even überhaupt if this can be mimicked with the proposed total demand growth methodology (that for the record has not yet been finalised and in any case not validated by Febeliec).
- On market response, Febeliec regrets that it is still unclear how Elia copes with a.o. the much accelerated roll-out of smart meters (a.o. in the Flemish Region), the introduction in 2021 of ToE in DA/ID, the roll-out of Elia's in house developed Internet of Energy project. Febeliec also remains with the question why the additional market response volumes that were contracted in winter 2018-2019 by several BRPs in the Belgian system are not included in the data, as it has factually been proven that those volumes do exist and can be contracted by BRPs in case security of supply issues would warrant them to do so in order to ensure that they can balance their portfolios in order to avoid to be exposed to potentially very high imbalance prices. Febeliec also wants to stress that it regrets that Elia does not take into account its own on-going efforts to strengthen the exposure of BRPs to price signals, such as a.o. the new alpha factor, which should reinforce the market signal and thus also the incentive for BRPs to ensure that they have sufficient means, including market response, to balance their portfolio and thus decreasing the need for any capacity remuneration mechanisms, being it a strategic reserve or any other mechanism.

On the hypotheses and data sources, Febeliec has some fundamental questions and comments. On the climatological data, Febeliec wonders why the winters 1982-2016 will be taken into account, but not the recent (known) winters of 2017, 2018 and 2019. While it could be argued that for winter 2019, a quarter after its end data on temperature might still not be available (which seems weird, as most of this data is updated almost in real-time), it is very strange that the winters of 2017 and 2018 are not included either. Taking into account that the European Resource Adequacy Assessment methodology proposed by the TSOs (including Elia) refers to climate change as a driver for any forward-looking adequacy assessment, and taking into account the conclusions of a study from the Vrije Universiteit Brussel (*Winter is leaving: Reduced occurrence of extremely cold days in Belgium and implications for power system planning; 2020*), known to Elia, Febeliec most strongly regrets that Elia has not done a better job at using the most relevant data by updating the dataset. Indeed, the VUB study's conclusions clearly stipulate that “*there is a high degree of co-occurrence of simulated persisting LOLE events with extremely cold days and the probability of such extremely cold days has shown robust decreases across Belgium (and its neighbouring countries) since the 1980s*”. While indeed the study

does not exclude such events, and their impact on the system, it clearly states that their occurrence significantly declines over time. Febeliec in the very strongest possible way wants to state that the Belgium adequacy criterion already allows to cope with such situation, as Belgium has a double criterion, including a P95 LOLE of 20h instead of 3h in general, meaning that the criterion already copes with a once-in-twenty-years event. As such, Febeliec in the strongest possible way urges Elia to apply this criterion for the diminishing probability of a severe winter in its assessment and thus exclude the very skewed effects of a very limited number of winters in the decade 1982-1990 from the base case scenario. This is linked to Elia's methodology, not approved by Febeliec, that next to the base case scenario also foresees sensitivities, for which Elia uses itself a "high impact low probability scenario", which thus would be more fitting for the climatological impact of winters more than 30 years in the past than the base case scenario. Febeliec also proposes to include other sensitivities, not in the least a sensitivity linked to the impact of Covid-19 (a clearly high probability (100%) and high impact event as compared to other sensitivities Elia takes into account) and its impact on a.o. total electricity demand in Belgium, while Febeliec also wants to voice its issues with including French generation as a pivotal element in the adequacy assessment, as France has an operational CRM and thus by definition is to be adequate (unless Elia could quantitatively indicate that the French CRM would not deliver and that both the French TSO and regulator have not implemented solutions for French adequacy).

On 3.2.1.1, Elia states that *"the FPS Economy will consult the three Belgian communities to obtain forecasts for the installed capacity of onshore wind and photovoltaic production"*; Febeliec presumes that the Regions are meant here, as the communities have no jurisdiction on renewable energy capacity? Febeliec is also surprised to see that *"the forecasts for installed capacity are combined with the historical production files to obtain 34 different time series for the winter period and for onshore wind, offshore wind and photovoltaic production separately"* and wonders whether these 34 years than also refer to the 34 winters of the climatological data (1982-2016) and why not any more recent data is used, as technological innovations in wind and photovoltaics over the recent years have been increasing and impacting the production profiles of such new installations (increasing the produced energy per installed capacity), as Elia itself also indicates in many of its own studies. Febeliec would like to have more clarity and also would like to see the impact of this effect for the timeframe of this study, but also any other further-forward-looking adequacy assessments.

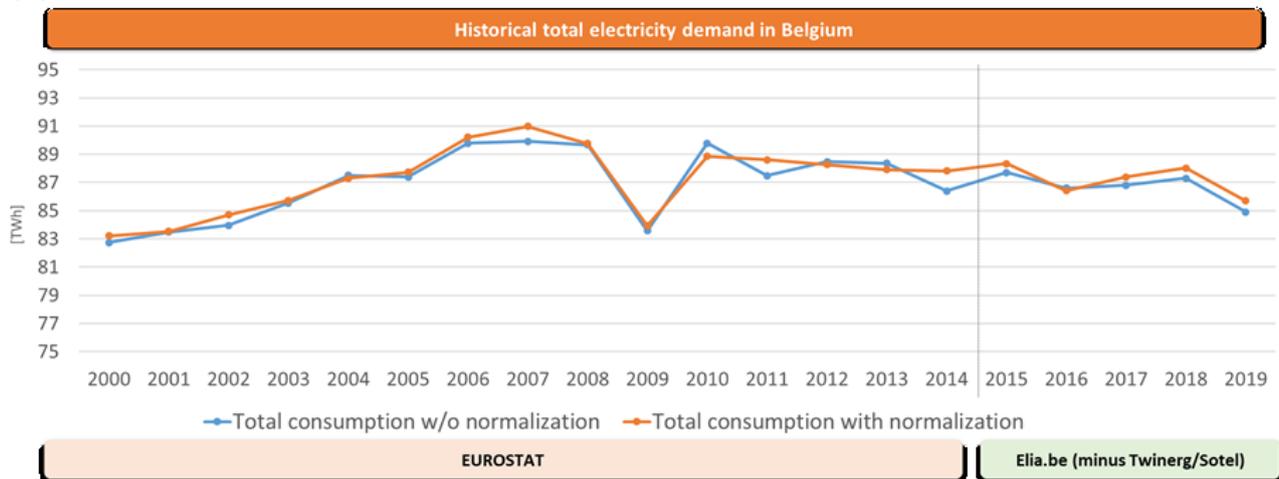
On the thermal production with a CIPU contract, Febeliec would have liked to see a more in-depth analysis of historical availability rates. With respect to planned unavailability, Febeliec reiterates a question it has already asked when the results for the strategic reserve for winter 2019-2020 (and the two following winters) were presented, i.e. to what extent this should be covered by the system and society and not by individual BRPs. If for example the operator of large generation facilities announces to simultaneously make several plants unavailable at the same time, it should be duly and clearly investigated to which extent is this acceptable, to which extent such situation is to be covered by the system and paid by all consumers and to which extent this could lead to intentional actions and thus perverse effects, where such announcements of planned unavailabilities could lead to a desired outcome. In any case, Febeliec in the strongest possible way wants to reiterate its position that the BRPs are to cover all planned unavailabilities in their portfolios and that unplanned unavailabilities are only to be covered by the TSO for the residual imbalance, for which Febeliec has always supported all efforts to provide correct (price) signals.

For the hydroelectric power stations, Febeliec refers to its previous comments regarding 34 historical years, and would like to have confirmed that this is also the period 1982-2016 and if so, why more recent data is not taken into account.

Concerning the balancing reserves, Febeliec to a large extent follows the reasoning by Elia, but reiterates its comments on the use of the strategic reserve (or other (slow-start) units) for balancing purposes in extreme situations, such as high impact low probability scenarios, meaning that no additional balancing reserves need to be contracted additionally as the strategic reserve together with all other last resort measures in the balancing timeframe should be sufficient to cover the needs.

On the section on the hypotheses on the Belgian electricity demand, Febeliec has both issues with the methodology as well as the underlying assumptions applied by Elia. Febeliec agrees with Elia that the growth in Belgian overall electricity demand is indeed influenced by several different parameters, including in particular economic indicators such as GDP growth. However, Febeliec continues to wonder whether the methodology by Climact to determine overall Belgian demand is able to correctly estimate Belgian electricity demand (see also below for a more detailed analysis of the proposed methodology by Climact).

Febeliec also wants to refer to the figure below which was provided by Elia on 27/05/2020 based on Elia data and calculations showing total electricity demand and normalised total electricity demand for Belgium over the period 2000-2019.



The historical data sources are indicated on the chart.

For the normalization, Elia applies a simple linear method based on the equivalent HDD, 'jours ouvrés' and amount of days in the year (correction for leap years).

The normalization methodology is currently under review at Elia and could lead to slight differences in the historical normalization values. It is also important to note that the data above were never normalized before 2010 and that the same impact is used for the whole horizon.

In past studies other sources have been also used for historical data (ENTSOE.net for instance) where the same definition of consumption was used across all countries. Since the introduction of a common tool at ENTSO-E (since MAF2019), the consumption source for future studies will be the one published on the Elia.be website which represents an estimation of the 'total electricity consumption' of Belgium.

Figure 1: Belgian electricity demand (Source: Elia, 27/05/2020)

Febeliec wants to indicate explicitly two elements that can be seen on this graph: on the one hand the financial crisis of 2008 leads to a more than significant drop in Belgian electricity demand (a decrease with more than 5TWh or more than 5%) towards 2009 and on the other hand a very different growth path before and after 2008-2009, with the curve reversing from an increase towards a decrease in overall electricity consumption. Electricity consumption in 2018 (a full decade after the financial crisis of 2008) remains a few TWh below the pre-financial-crisis level and towards 2019 drops even an additional 2 TWh (instead of all the increases in electricity demand that Elia predicted over all its previous adequacy assessments, including all previous strategic reserve assessments like the one that is the subject of this consultation). Febeliec also wants to refer to the report of the Belgian Federal Planning Bureau (FPB) of 23/06/2020 which is the first official report from the FPB taking into account the effect of the Covid-19 sanitary crisis, an element that despite its extremely pronounced impact on the entire range of economic indicators, both nationally and globally, is not taken into account by Elia whatsoever. The FPB in this report clearly and explicitly indicates that the deep recession of 2020 (due to Covid-19, with a GDP decrease of 10,5%, the largest decrease in the post-war era) will be followed by renewed economic growth in 2022, yet this reprisal of economic activity will not suffice to return within five years (so by 2025) to the level of economic activity that would have been possible without the Covid-19 crisis. Moreover, the FPB also explicitly indicates that final energy consumption in the period 2020-2025 would decrease with on average 0,4% per year, and while the FPB at this point does not provide a breakdown over the different energy vectors, it would be very unrealistic (or even surrealistic) to imagine that electricity demand would not be affected also with a decrease, unless robust data and analyses should be provided that would undeniably indicate that a.o. electrification would completely offset this decline and would lead to an increase or stabilisation of electricity demand in Belgium despite a decrease in final energy demand. Moreover, in such case, it should also be explicitly investigated which sources of electrification would lead to such effect and to what extent those would lead to an impact on peak load in the Belgian system (as opposed to overall energy consumption), as many often cited sources of electrification (e.g. electric vehicles and heat pumps) are exactly examples of energy demand sources that are controllable and can be used to buffer or

where demand shifting is possible, especially in times of potential scarcity, during which electricity prices would be rising and giving correct price signals and incentives. Based on the fact that at this point Climact has not shown that its methodology is able to predict electricity demand under the current economic situation and the fact that, based a.o. on the analyses and data from the FPB, the Belgian economy is undergoing the worst economic catastrophe in the post-war era, largely surpassing the financial crisis of 2008 in its economic effects, Febeliec in the strongest possible way urges Elia to take this information duly into account, in order to avoid that any adequacy assessments would unduly and unjustified come to any unwarranted and unfounded yet potentially very wrong and costly conclusions.

On 3.2.2.4 of the sensitivity of load to temperature, Febeliec is surprised to see that now 35 historical climate years (as opposed to 34 before) are used, yet that this leads to only 34 different hourly load profiles for the analysed winters. Febeliec also reiterates its request to clearly indicate which years are investigated and in case, as mentioned before, the most recent years up to and including 2019 are not considered by Elia, why this would be the case and why years almost four decades in the past are considered more relevant by Elia than the most recent years. Furthermore, Febeliec has some issues with the statement by Elia that it has to *“keep consistency with the European adequacy assessments”*, yet does only seem to apply this approach in a consistent way and in any case does not follow the same approach towards validation of its methodology and data, a.o. regarding regulatory approval as is the case with the European Resource Adequacy Assessment or the removal of the use of a high impact low probability scenario.

On 3.2.3 market response, Febeliec very strongly wants to react towards the statement by Elia *“as agreed in the context of the Implementation Strategic Reserve task force during 2017”*, as while the statement that a yearly rerun of the analysis will be done seems indeed a very sound approach, Febeliec has explicitly and at multiple moments in time, including task force meetings and public consultations, stated that it did not whatsoever approve nor agree with the approach proposed by Elia as it still has according to Febeliec some fundamental issues regarding a correct estimation of market response in Belgium, both historically and forward looking (Febeliec refers a.o. to its comments on the market response volumes that were available in winter 2018-2019, yet cannot be reproduced by the methodology, thus indicating the fact that the applied methodology by Elia results in at best a gross underestimation of the true volume of market response in the Belgian system (see below also for further comments on the proposed methodology).

On the hypotheses for the other simulated countries, Febeliec reiterates many of its comments it has already made numerous times during previous consultations and discussions on Elia's adequacy assessments, including those for strategic reserve. Febeliec does a.o. not see a reference to the European Resource Adequacy Assessment, while Elia refers to bilateral contacts, without specifying which contacts and how these are impacting the outcome, the latest PLEF adequacy study, which as already indicated at numerous occasions can hardly be considered a balanced report as most market stakeholders, with the exception of producers who have a clear incentive towards increasing the volume of any capacity remuneration mechanisms such as a.o. a strategic reserve, are not allowed to participate in the discussion and provide their comments, national reports, without indicating which reports nor how they are impacting the outcome of the analysis (Febeliec here also strongly wants to suggest looking at the latest economic forecast from the Belgian FPB, if this would not be the case already) and other statistics, without mentioning any sources, thus clearly showing a large issue towards transparency and the possibility to validate and reproduce the outcome and conclusions from Elia's analysis.

On the hypotheses for interconnectors, Febeliec regrets that based on the consulted document and despite numerous requests for this in the past, it is still impossible to evaluate the impact of the Alegro interconnector. On the evolution of simultaneous import capacity restrictions and cross-border import in general, Febeliec is surprised to see that Elia still applies a restriction of 6500 MW for reasons of *“adequate voltage regulation capability of the Belgian system”*, while at the same time Elia is currently rolling out new mechanisms and products in exactly this domain and Febeliec would have expected that the on-going developments and roll-out would at least have had a positive impact on the import capacity restriction (if not, it should be investigated if those costly evolutions should be continued). Moreover, Febeliec would like to state very strongly that the Clean Energy Package has entered into force, including the provision of minimum 70%minRAM cross-border capacity that has to be given to the market. Even with derogations and action plans (and the obligation to respect 20%minRAM in CWE), Febeliec hopes that this will be included in the analysis for the following three winters and would like Elia to detail how this has been done and what the impact is on the adequacy assessment. Moreover, Febeliec would like to reiterate its request to indicate very clearly in case of limitation of cross-border flows, in this as well as other adequacy related studies, whether this is the result of either lack of cross-border interconnection capacity or lack of energy in interconnected markets, as this is very valuable information and will

become of much more significance in the future when the Clean Energy Package will be fully implemented. On 3.4.2.3, Elia mentions that *“changes to historical domains will be applied when relevant”* and Febeliec wonders who will determine the relevance and compared to what the relevance will be assessed. On planned outages of interconnectors, Febeliec is surprised to see that planned outages of interconnectors are überhaupt considered during winter, if Elia were to consider such period as a potential concern for adequacy in Belgium. As Elia is shareholder in every interconnector in Belgium, Febeliec would assume that Elia would avoid any unplanned outages during the winter period, especially during periods when the Belgian system would be under stress, and wonders to what extent the applied unavailability factor is not overestimating the unavailability during winter, as it also takes into account planned outages which should resumable under the above premise only happen during non-winter periods. Febeliec also takes note of Elia’s comment on the *“bathtub curve”* and while it has many questions regarding the actual occurrence of such curve, Febeliec strongly wants to indicate that if such curve would exist, in any case Elia in the framework of all its other adequacy assessments, especially those looking further ahead, should then adapt its methodology to take into account the lower unavailability of interconnectors in later years (e.g. 2025) when experience should make that curve bottom out, thus leading to a better availability of interconnectors on average, which should then duly be taken into account in all those assessments (as well as future strategic reserve assessments). On the way ANTARES takes into account demand response, Febeliec regrets that the tool has still not developed a better way to approach demand response other than modelling it as *“very expensive generation units”*, despite many comments about this in recent years. Febeliec would also like to stress that Elia is referring here to demand response, whereas actually market response should have been used, unless Elia is incorporating all non-demand response elements of market response elsewhere in the model. If the latter would not be the case, this would imply an underestimation of market response in the model.

Febeliec would most strongly also like to get some clarity on the relation between this exercise on the dimensioning of strategic reserve compare to the previous exercises, especially for those winters covered by several calculations, the link with the Elia Adequacy and Flexibility study of June 2019, the MAF study Elia refers to, the adequacy assessment Elia is presumably to carry out in the framework of a potential introduction of (another) CRM in Belgium and the (future) European and regional resource adequacy assessment that will have to be. It is clear that all these studies will analyse system adequacy in Belgium, but with different scope and time horizons as well as governance. However, it is unclear to what extent the current study with respect to the strategic reserve 2021-2022 is modified compared to the study for the strategic reserve for winters 2019-2020 and 2020-2021 in light of the discussions of Elia with other stakeholders, both market and non-market, on the other study currently being developed and the new or improved insights resulting from these (a.o. on total demand growth or the volume of market response).

Febeliec regrets that the consultation does not cover any potential sensitivities that will be analysed while Febeliec also regrets that for the low probability high impact scenario that is referred to, Elia has not indicated which would be the parameters that will be applied for this sensitivity as Febeliec has indicated for the previous exercise (as well as other related exercises) that an increase in the height of the impact (e.g. increase of nuclear unavailability from 1GW to 1,5GW as a result of the unavailability of several nuclear plants operated by the incumbent producer in Belgium during one exceptional winter) leads to an increase of the need for strategic reserve and thus cost for consumers, while it is unclear to what extent such scenario is relevant towards the future (very low probability as compared to low probability) and to what extent the (recent) past has not shown that under exceptional circumstances mitigating solutions have been found within the market that were not identified before (relating also to the previous comment on the underperformance of the methodology for the assessment of market response). Moreover, Febeliec, as already indicated, would like to see how the impact of the Covid-19 crisis, a high impact and high probability (100%) scenario, will be taken into account, especially taking into account official data and reports that are taking into account the impact of this major health crisis, such as a.o. the FPB.

On the appendices Febeliec also wants to provide a short and non-exhaustive overview of comments, also referring to its numerous comments on these in previous years which still have not all been addressed. On the adequacy criteria, Febeliec wants to refer to the on-going European discussion on the determination of the adequacy criteria, but also to its previous comment on the LOLE95 of 20 hours which can be applied for severe situations such as those referred to in Elia’s high impact low probability scenario, instead of only applying the LOLE 3 hours criterion, even in such situations. LOLE95 is indeed referring to *“a statistically abnormal year”*, thus in its design conceived to cover high impact low probability scenarios. With respect to the SGR and SDR assumed to be available during winter, with an assumption never to undergo planned maintenance during the winter, Febeliec refers to its comment on the interconnectors. Febeliec also wants to reiterate its position, already also expressed in previous years, towards the methodological approach of

increasing the margin and/or strategic reserve volume by blocks of 100MW in the iterative process for the determination of the potential required volume. For Febeliec, a finer granularity than 100MW should be used, as even the lack of 1MW under the current approach would immediately lead to a need of 100MW additionally. Applying a finer granularity would avoid sourcing unneeded volumes. Alternatively, an approach could be implemented where very marginal transgressions of the LOLE criterion do not automatically lead to an increased contracting of strategic reserve volumes, through the application of a deadband, taking into account the multiple layers of sensitivity already applied by Elia in combination with low probability, high impact scenarios, which already skew all the results towards a very conservative approach. For Febeliec, it should in any case be avoided to increase the cost for the grid users unnecessarily by following a much too conservative approach. On the flow-based method, and notwithstanding previous comments on this such as the impact of Alegro, Febeliec also wonders what will be the impact of on-going evolutions in CWE and CORE, including a.o. the go-live of CORE FBMC in 2021 as well as all other expected evolutions.

On the Climact study regarding total electricity demand forecasting, Febeliec appreciates that Elia is undertaking endeavours to provide a better approach for determining future total electricity demand in Belgium. Febeliec is interested to see what the outcome will be, and also wonders how the Covid-19 crisis will be taken into account, to which is specifically referred in the document at multiple occasions. Febeliec refers in this framework to the latest report from the FPB, as Climact also refers to the FPB as a relevant source for macro-economic data. Febeliec is in any case relieved to see that, as compared to the rest of the methodologies applied in the framework of this public consultation, at least reference is made to the existence and potential impact of the Covid-19 sanitary crisis. On the methodology itself and as already indicated during the discussions with Climact and Elia and other stakeholders, Febeliec wonders to what extent the proposed methodology, even with the latest improvements, will be able to grasp the impact on total electricity demand in Belgium, in the short term, medium term and long term framework, with the first one being the most relevant in the framework of this consultation, but the latter also very relevant in the framework of other adequacy assessments. A.o. the impact of import/export and the trade balance on the outcomes of the model are as of yet still unclear, while for example (much) higher electricity prices in Belgium could lead to substitution of local production of goods towards imports and thus lowering the demand for electricity in Belgium while not necessarily impacting to the same extent a.o. overall GDP numbers. When looking at the macro-economic variables taken into account by Climact (Table 1), Febeliec wonders if those would be sufficient to ensure that all aspects are covered, in particular for example the impact of Covid-19 on electricity demand in Belgium. Moreover, in 2.4.1 Climact states that *“to establish a link between a macroeconomic variable and a BECalc variable, a linear regression analysis is performed between their historical values”*, which makes Febeliec wonder how this will be conducted in light of the macroeconomic impact of Covid-19 (and also which years will be considered the relevant years for a macroeconomic analysis); Febeliec for this also refers to the electricity demand data provided by Elia, shown above, which show that if such analysis were to be conducted over the period 2000-2008, the expected value for 2009 would have been greatly exaggerated, as would have been all further years. Moreover, when looking at the period 2010-2019 (so even after the financial crisis of 2008-2009 itself), the trend line is decreasing, with in 2019 (pre-covid-19) even a sharp decline, not shown by any previous Elia estimations (nor for any of the previous years for that matter, where Elia always predicted increases in total electricity demand in Belgium). Febeliec in this light is very pleased to see that Climact has conducted some backtesting of the methodology on years 2016-2017, yet wonders whether the Climact model would have been able to predict the 2019 decrease (pre-covid-19). Febeliec yet wonders to what extent the model can cope with the Covid-19 crisis and thus wonders to what extent the backtesting of the Climact model also results in robust results for the period 2007-2010 for which all historical data is available. Febeliec would not be surprised that the model would perform less well and would thus also perform less good for 2020 and all future years. While it cannot be blamed to the model that it is unable to cater to crises such as the current Covid-19 crisis, it is very important then to ensure that the final input to the Elia adequacy assessments at least has a very thorough reality check, in order to avoid that total Belgian electricity demand is overestimated and thus also any potential future adequacy risk in Belgium, which could lead to unduly and unnecessary high costs for consumers. On the illustrative results for years 2021-2023, Febeliec will not comment until the impact of the Covid-19 crisis is included, while the new projections from the FPB are now available. As stated, they are only to be seen as an example without any relevant quantitative results for the assessment by Elia. Lastly, Febeliec would clearly like to stress that it has not agreed with the methodology at this stage and that it is looking forward to all improvements in order to see whether it would be able to approve it.

On Market Response, Febeliec would clearly like to insist that it has never agreed with the methodology for market response as it was developed by E-Cube for Elia, but rather that it was overruled by Elia and that Elia has chosen to proceed with this methodology despite comments and concerns from Febeliec. Febeliec appreciates that efforts are

made to improve the proposed methodology yet Febeliec remains strongly of the opinion that the (preliminary) results for market response (which is broader than demand side response) presented as outcome of this methodology in the framework of the previous adequacy assessments conducted by Elia clearly show that the methodology leads even for historic periods (winter 2018-2019) to lower volumes of market response than have been announced and observed in the system. This continues to worry Febeliec as a methodology that is not even able to backtest historic data results in a wide range of questions on its overall validity and performance. While the document states that *“market response is a crucial dynamic parameter when difficult situations arise on the electricity grid”*, Febeliec wants to insist that market response and demand response not only provide value to the system under such conditions but at every point in time contribute to better market functioning in general. Febeliec as already indicated numerous times did not approve the proposed methodology nor the process to come up with the proposed methodology (e.g. specifically referring to the 2015 questionnaire with non-representative results due to limited scope of the consultation). While a process was put in place to discuss a possible methodology, the outcome of that process has never been formally approved, in any case not by Febeliec and to its knowledge neither by any official body, and as such all considerations by Elia and E-Cube in their approach are solely the choice of those parties. When the report mentions that *“based on the workshops and input from consultants, it was concluded that the entire available market response can be taken into account by following the threefold approach set out below”*, Febeliec wants a clear indication by whom this was concluded as Febeliec did most definitely not make such conclusion and this should thus also be clearly reflected. Also referring to prices above 150€/MWh as exceptionally high is not in line with the position of a.o. Febeliec, as such prices are only a fraction of market cap prices in the day ahead, intraday and balancing markets and as such do not at all reflect scarcity conditions in the system. While the document states that irrational behaviour by stakeholders is not taken into account in the study, Febeliec can only observe that rational behaviour, such as BRPs ensuring not to be exposed to potentially very high imbalance prices, as could be clearly observed a.o. in winter 2018-2019, is not taken into account by Elia either. Yet the document states that market players will anticipate events with high prices (correlated to increasing scarcity), which Febeliec also assumes in particular to be the case for extreme situations. In any case the last step of the methodology developed by E-Cube for Elia entails a sanity check, but Febeliec regrets that this step is continuously overlooked and that as a result no lessons learned are drawn nor the methodology adapted in order to find a solution that better captures a.o. historically observed market response volumes. Febeliec strongly urges Elia to perform this sanity check and if the results would not be in line with the past (as is the opinion of Febeliec), either Elia should yet again revise and improve the methodology or at least use any higher value that could have been observed in the market as an underlimit for its forecasts. Moreover, Febeliec also to refer to its aforementioned comment on the impact of electrification on system peak (e.g. in case of electrification through more electric vehicles or installations with buffering effects such as heating and cooling).